REMARKS

Reconsideration and re-examination of this application is respectfully requested.

Rejections under 35 U.S.C. §103

Claims 1, 3 -6, 8-11 and 13-15 were rejected under 35 U.S.C. §103(a) as being

unpatentable over Tam et al. (US 6115751) in view of Applicant's admitted Prior Art (AAPA).

Tam:

Tam describes an arrangement which seeks to overcome certain problems that are

encountered when a Data Linking Switch (DLSw) is provided as a forwarding mechanism for an

SNA architecture over an IP backbone. As described at column 4, lines 40-42, SNA is a

mainframe-oriented architecture that, similar to IP, uses a layered approach.

In SNA, during session establishment, each end node allocates a local form session

identifier (LFSID) for each direction of the session; the LFSID is appended to the packets by the

node in a transmission header field of a SNA header to identify the session in context (col. 4,

lines 36-50).

Tam describes, at col. 4, lines 50-66:

"…When initiating a session, the application 302 specifies a mode name that is carried within the
BIND message and distributed to all APPN nodes; the LU 304 in each node uses the mode name
to indicate the set of required characteristics for the session being established. Specifically, the
mode name is used by control point (CP) module 308 of each APPN node 300 to find a
corresponding class of service (COS) as defined in a COS table 310. The CP coordinates
performance of all APPN functions within the node, including management of the COS table
310. The COS definition in table 310 includes a priority level specified by transmission priority
(TP) information 320 for the packets transferred over the session; as a result, each APPN node is
apprised of the priority associated with the packets of a LU-LU session. The SNA architecture
specifies four (4) TP levels: network priority, high priority, medium priority and low priority.

Path control 312 maintains a plurality of queues 314, one for each TP level, for transmitting packets onto the transmission media via DLC 316…"

As described at column 5, Data Link Switching (DLSw) is a forwarding mechanism for

the SNA architecture over an IP backbone. One problem with DLSw is described at col. 5, lines

32-34, in that "all packets transmitted by DLSw switch over a DLC connection/TCP session flow

at the same priority level from a single output queue…"

Tam states 'a problem that arises when deploying a hybrid node in such a heterogeneous

network is that TP priority information is lost when passing the packets between the APN and

DLSw layers, primarily because the TP information is not encapsulated within the packets…'

Tam's invention describes the use of a filter, to capture TP information, to enable the data

to be forwarded out the appropriate priority queues of the DLSw.

As described at column 7 of Tam:

"…Operationally, the OLU issues a LOCATE request to the hybrid node, requesting the latter node to locate a destination logical unit of an end node by invoking directory services. If the data session path traverses the DLSw connection network environment, the hybrid node issues a "sniffing" filter to the first DLSw node prior to responding to the LOCATE request. Preferably, the sniffing filter instructs the first DLSw node to monitor data traffic over the network for the BIND message and, to that end, contains addressing information relating to the orginating and destination end nodes, along with the TP level associated with a particular mode name.
Upon receiving the filter, the first DLSw node commences examination of the data traffic and, in response to recognizing the BIND message, captures the contents of its mode name and its LFSID (contained in the SNA transmission header). The node then compares these captured contents with the contents of the sniffing filter (e.g., the addressing information and mode name) and if they match, the LFSID is recorded. All subsequent inbound packets having a LFSID that matches the captured LFSID are transmitted at the specified TP level…."

At column 4, Tam describes "… Path control 312 maintains a plurality of queues, one for

each TP level, for transmitting packets onto the transmission media…"

It is well known that "to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)…" (M.P.E.P. §2143)

The combination of Tams with AAPA fails to satisfy the burden of prima facie obviousness for at least the below reasons:

1. Combination neither describes nor suggests the claimed invention

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under **35 U.S.C. 103**, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Claim 1:

Claim 1 recites the limitations of "… A computer implemented method for expediting a selected operation in a computer system, the method comprising … associating a plurality of routing operations with an operating system routing task, the plurality of routing operations including the selected operation, wherein the operating system routing task is one of a plurality of operating system tasks executed by an operating system included in the computer system;

executing the operating system routing task at a low priority level prior to performing the

selected operation; and raising the operating system routing task to a high priority level in order

to perform the selected operation in response to a detection of a trigger condition comprising a

link state advertisement protocol message indicating that the selected operation is to be

performed, wherein the raising the operating system routing task to the high priority level causes

the operating system routing task to execute without being interrupted by at least one other

operating system task running at the low priority…" Applicant respectfully traverses the

Examiner's assertions that these limitations are taught by the combination of references.

a. Tams in view of AAPA fails to disclose or suggest "associating a plurality of routing

operations with an operating system routing task, the plurality of routing operations including the

selected operation, wherein the operating system routing task is one of a plurality of operating

system tasks executed by an operating system included in the computer system…"

       The Examiner states that such limitation is taught in the abstract and at column 9, lines

22-34. However, this portion of Tams merely states:

       "…In the illustrative embodiment, there are a plurality of connection/session "views"
established within the network 600. For example, from DLSw view, there is a DLC connection
642 between device 602 and DLSw layer 614 of node 610, and a DLC connection 644 between
DLSw layer 664 and device 608; in order to provide reliable, end-to-end connections between the
devices, these DLC connections are "overlayed" onto TCP sessions (denoted 645) between the
two DLSw layers 614, 664. In addition, from a LU view, there are multiple LU-LU sessions 680
(at various priority levels) between the LUs of devices 602 and 608…"

       Applicants respectfully traverse the Examiner's assertion that the mapping of multiple

'views' of a connection onto a TCP session is analogous to 'associating a plurality of routing

operations with a routing task…' as recited in the claims of the present invention. The Examiner

has failed to give patentable weight to the language of the claims, in particular to the terms 'plurality of routing tasks.'

Accordingly, for at least the reason that the combination of Tam and AAPA fails to describe or suggest "…associating a plurality of routing operations with an operating system routing task, the plurality of routing operations including the selected operation, wherein the operating system routing task is one of a plurality of operating system tasks executed by an operating system included in the computer system…" it is requested that the rejection be withdrawn.

b. The combination of Tam and AAPA fails to describe or suggest "…executing the operating system routing task at a low priority level prior to performing the selected operation… and raising the operating system routing task to a high priority level in order to perform the selected operation in response to a detection of a trigger condition …"

The Examiner states that such limitations are taught at col. 8, lines 22-34, col. 7, lines 22-32, col. 9, lines 45-55, col. 10 lines 4-15 and Figure 9. However, no support for these limitations can be found in the portions of text cited by the Examiner, nor anywhere else in Tam.

For example, col. 8, lines 22-34 merely describes the elements that may be included at each node, and thus it is unclear how such text teaches 'executing the operating system routing task at a low priority level prior to performing the selected operation…' The text of col. 8, lines 22-34 is provided below:

"… Each node typically comprises a plurality of interconnected elements, such as a processor, a memory and a network adapter. The memory may comprise storage locations addressable by the processor and adapter for storing software programs and data structures associated with the inventive information capturing techniques. The processor may comprise processing elements or logic for executing the software programs and

manipulating the data structures. An operating system, portions of which are typically resident in memory and executed by the processor, functionally organizes the node by, inter alia, invoking network operations in support of software processes executing on the node. It will be apparent to those skilled in the art that other memory means, including various computer readable media, may be used for storing executable program instructions pertaining to the techniques described herein…"

Applicants respectfully note that there is no mention of executing any tasks at any priority in this portion of the text.

Column 7, lines 22-32 describes how Tam uses a filter to examine data traffic to extract the LFSID from a packet. The text states 'All subsequent inbound packets having a LFSID that matches the captured LFSID are transmitted at the specified TP level…' As best can be determined by Applicant this means that rather than placing the packets in a generic queue, they are placed in the appropriate output queue (see col. 4, lines 66-67 which states 'Path control maintains a plurality of queues… one for each TP level).

It is important to note that although Tam states that packets are transmitted at specified TP levels, there is no mention or suggestion in Tam that the operation or task of *transmitting* increases or decreases in priority. There is no expediting of tasks in Tam, merely the forwarding of communications between endpoints of sessions.

In addition, Applicant respectfully submits that the Examiner is failing to give patentable weight to the language of the claims which includes "… raising the operating system routing task to a high priority level *in order to perform the selected operation* …" It is unclear what the Examiner is stating is analogous to the 'the selected operation', and Applicants can find no operation in Tam where the priority level is raised 'to perform the selected operation' and lowered following the selected operation.

With regard to the remaining portions of the text which the Examiner refers to, column 9 lines 45-54 describes the problem which the present invention seeks to overcome (the LFSID not being readable by the DLSw), and column 10 describes the filtering operation of the present invention.

Accordingly, for the additional reason that the combination of Tam and AAPA fails to describe or suggest "..."...executing the operating system routing task at a low priority level prior to performing the selected operation... and raising the operating system routing task to a high priority level in order to perform the selected operation in response to a detection of a trigger condition ..." , it is requested that the rejection be withdrawn.

<u>Claims 6 and 11:</u>

Claims 6 and 11 are independent claims which include limitations similar to those described as patentable above over the combination of Tam and AAPA. In particular, claim 6 recites "… _an operating system_ stored on a computer readable medium, the operating system comprising …   _an operating system task including logic which when executed performs a plurality of routing operations,_ …and …_the operating system including task priority control logic operably coupled to execute the operating system task at a low priority level prior to performing the selected operation and raise the operating system task to a high priority level in order to perform the selected operation upon detection of a trigger condition,_ …" No such structures are shown or suggested in the combination of Tam and AAPA. For at least this reason it is requested that the rejection of claim 6 be withdrawn.

Claim 11 recites "…_task priority control logic programmed to execute an operating system task associated with a plurality of operations including the selected operation at a low_

priority level prior to performing the selected operation and raise the operating system task to a

high priority level in order to perform the selected operation upon detection of a trigger

condition including receipt of a link state advertisement protocol message…" No such structure

is shown or suggested in the combination of Tam and AAPA. For at least this reason it is

respectfully requested that the rejection of claim 11 be withdrawn.

Claims 3-5, 8-10 and 13-15:

Claims 3-5 , 8-10 and 13-15 serve to add further limitations to respective parent claims 1,

6 and 11, and are allowable for at least the same reason as their parent claims. However, there

are several limitations in the claims which further distinguish the claims from the combination of

prior art. For example, no mention or suggestion is found in Tam, AAPA or the combination

thereof of the step of 'lowering the operating system task to the low priority level upon

completion of the selected operation…' as recited in claim 5. A similar limitation is included in

claims 10 and 15.

Accordingly, it is requested that the rejection of claims 3-5, 8-10 and 13-15 be

withdrawn.

2.   No motivation for the Modification suggested by the Examiner

There are three possible sources for a motivation to combine references: the nature of the

problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary

skill in the art." *In re Rouffet,* 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir.

1998)..."

"...The mere fact that references <u>can</u> be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)..."

Although the Examiner states that 'Tam did not clearly disclose the triggering condition comprises a link state advertisement protocol. Nevertheless, a link state advertisement protocol is taught in AAPA… therefore it would have been obvious for one of ordinary skill in the art, at the time of the invention… to incorporate this feature with Tam's invention to provide the communication network with various types of routing protocols...' Applicants respectfully disagree.

Applicants note that the motivation must be shown to modify the reference in the particular manner claimed. As described in Dembiczak: "Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references." Dembiczak, 175 F.3d at 999; see also Ruiz, 234 F.3d at 665 (explaining that the temptation to engage in impermissible hindsight is especially strong with seemingly simple mechanical inventions). This is because "[c]ombining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability—the essence of hindsight." Dembiczak, 175 F.3d at 999. Therefore, we have consistently held that a person of ordinary skill in the art must not only have had some motivation to combine the prior art teachings, but some motivation to combine the prior art teachings *in the particular manner claimed*. See, e.g., In re Kotzab, 217 F.3d 1365, 1371 (Fed. Cir. 2000) ("Particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for

combination in the manner claimed."); In re Rouffet, 149 F.3d 1350, 1357 (Fed. Cir. 1998) ("In

other words, the examiner must show reasons that the skilled artisan, confronted with the same

problems as the inventor and with no knowledge of the claimed invention, would select the

elements from the cited prior art references for combination in the manner claimed."). Teleflex v.

KSR International, 04-1152 (CAFC 2005

        In addition, it is well known that the modification suggested by the Examiner cannot

frustrate the operation of Tam. The Examiner appears to state that one would be motivated to

modify Tams to use link state advertisements to trigger the filtering of packets, to enable retrieval

of TP information, stating that this would allow more protocols to be used. It is unclear exactly

how this would work, as the Tam invention uses the trigger to start parsing a packet to identify

LSIF information; such information would not be included in a Link State Advertisement.

Accordingly, for at least the reason that the modification suggested by the Examiner would make

Tam inoperable, the rejection is improper and should be withdrawn.

Conclusion:

Applicant has made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Applicant's Attorney at 978-264-4001 so that such issues may be resolved as expeditiously as possible.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

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